

The background of the slide is a deep space scene. In the upper left, a large, detailed Earth is visible, showing blue oceans and white clouds. To the right and in the lower half, there are several vibrant nebulae in shades of purple, blue, and yellow. In the lower right foreground, four blue and orange spacecraft, resembling the Orion crew module, are arranged in a cluster, pointing towards the upper left.

Project Status Overview

Constellation-X Technology Meeting
May 1, 2002

Jean Grady

Goddard Space Flight Center

<http://constellation.gsfc.nasa.gov>



Project Overview Agenda

- ***Project Status Overview*** ***Jean Grady***
- ***Reference Mission Architecture*** ***Govind Gadwal***
- ***Observing Plans*** ***Kim Weaver***



Mission Definition Activities and Plans

- **Preparing for Phase A to start in FY03**
- **Development of mission documents on-going**
 - Draft Top Level Requirements
 - Reference Mission Architecture and Design Document
 - Science Design Reference Mission Document
 - Operations Concept Document
- **Mission documents are available on Constellation-X library web site: <http://conxproject.gsfc.nasa.gov/engn.htm>**
- **Industry mission studies to start in FY03 and FY04**



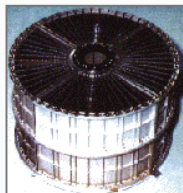
Technology Development Activities

- **Revised Technology Roadmap plans in summer and fall 2001**
- **Ongoing Technology Development ramped up in FY02**
 - Spectroscopy X-ray Telescope Optics is main focus of technology development
 - Reflector development
 - Pathfinder assembly
 - X-ray Calorimeter development includes TES and NTD/Ge
 - Single pixel optimization and small arrays
 - Considering technology options for the CCD/grating
 - Reflection versus Radial gratings
 - Event Driven versus Resistive Gate CCDs
 - Hard X-ray Telescope Optics development working toward small prototypes
- **Further ramp-up of technology development activities planned in FY03**



Constellation-X Summary Technology Roadmap

X-ray Mirrors



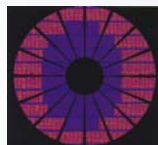
X-ray Calorimeters



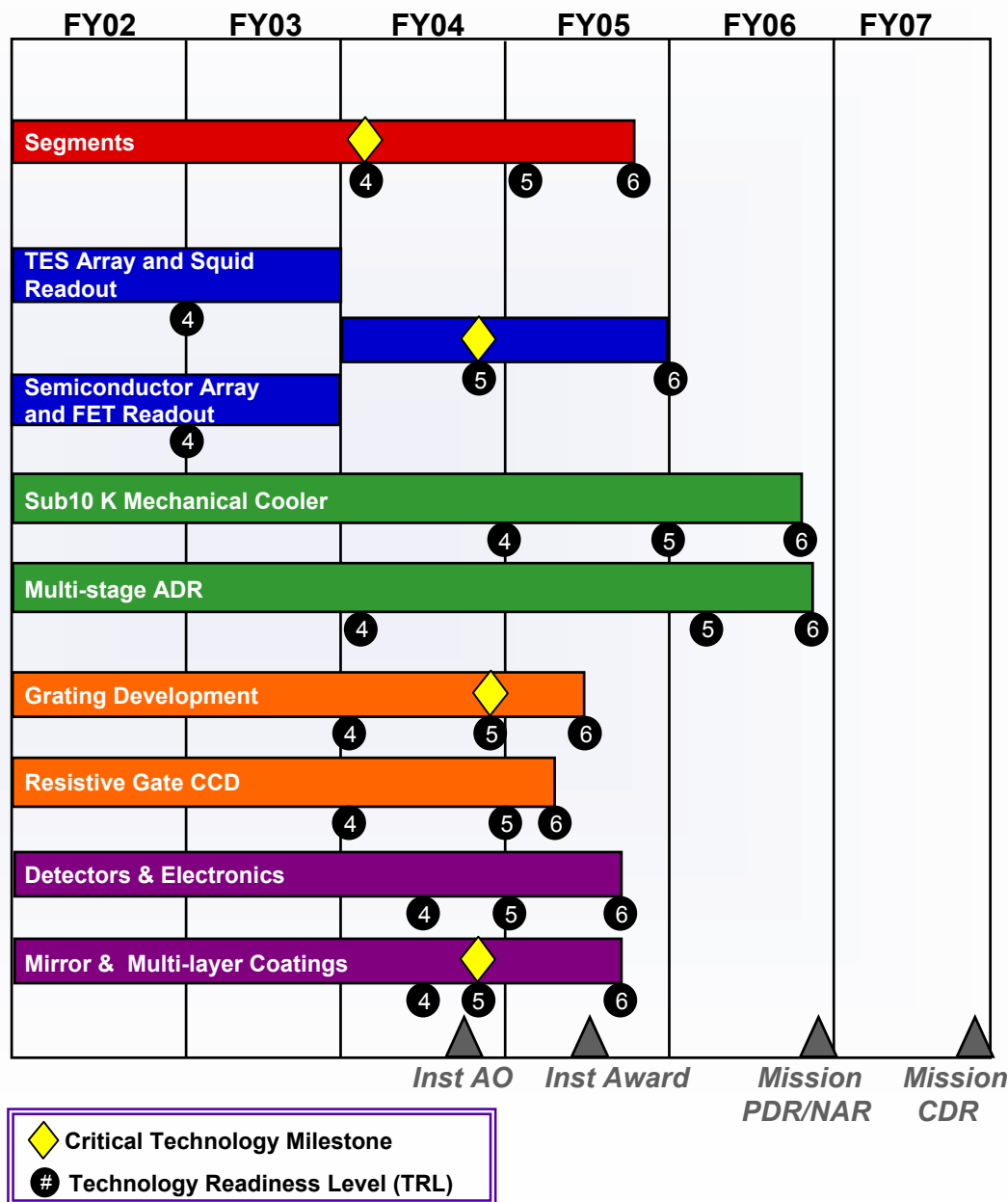
Cryocoolers



Grating/CCD

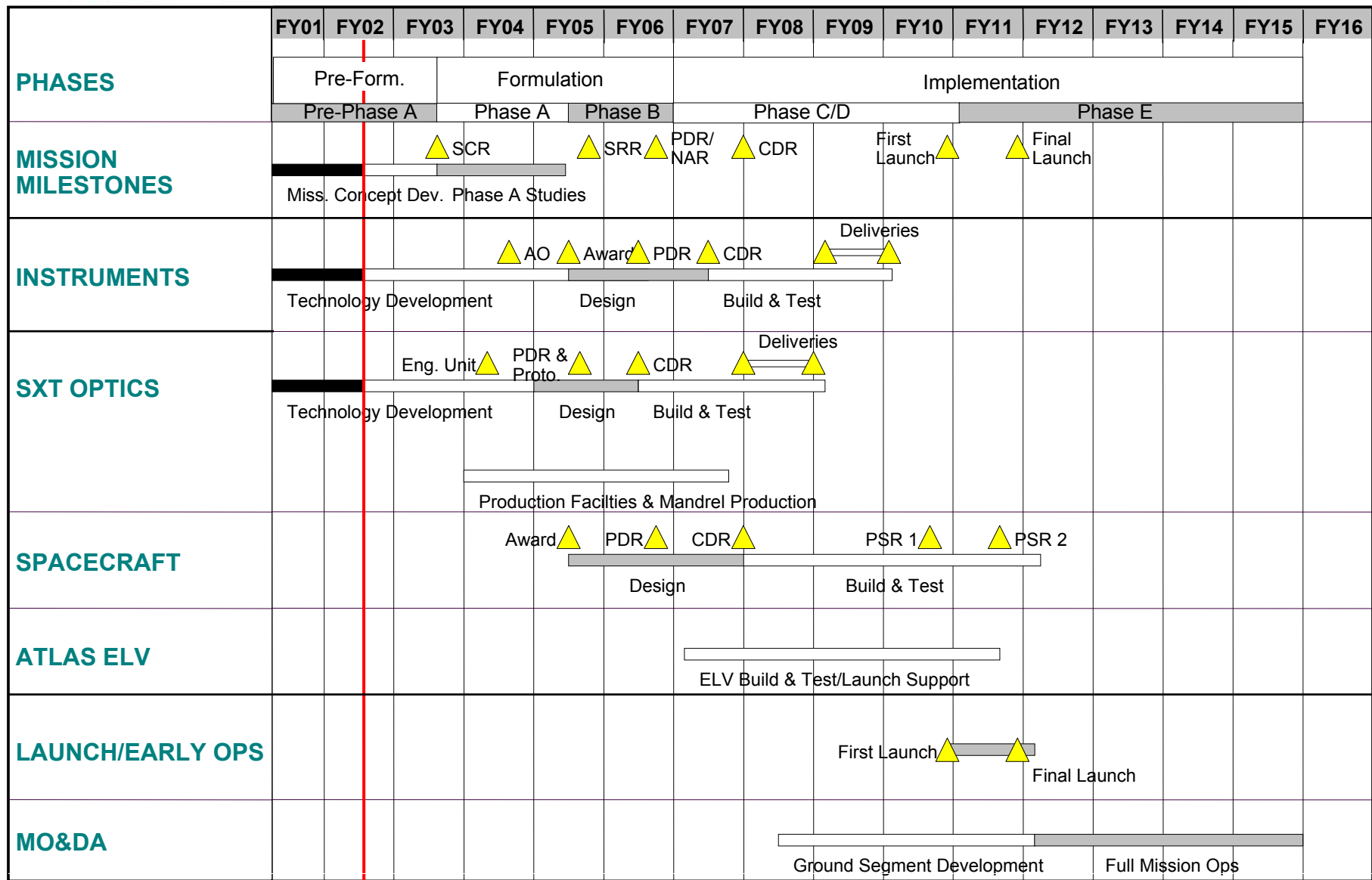


Hard X-ray Telescope





Constellation-X Project Master Schedule





Summary

- **Constellation-X is positioning to start begin Phase A and ramp-up technology development**
- **Technology development progress and results to date are promising**